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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

THAI, TUAN V

ART UNIT PAPER NUMBER

2186

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,774

Applicant(s)

DENNIE, SHAUN

Examiner

Tuan V. Thai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-26 and 30-34 is/are pending in the application.
- 4a) Of the above claim(s) 1-22 and 27-29 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-26 is/are allowed.
- 6) ☒ Claim(s) 30 and 32-34 is/are rejected.
- 7) ☒ Claim(s) 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/26/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Part III DETAILED ACTION

Response to Amendment

1. This office action is in response to Applicant's communication filed May 26, 2006. This amendment has been entered and carefully considered. Claims 23-26 and 30-34 remain pending in the application. Claims 1-22 and 27-29 have been canceled. Claims 23-26 are now allowed.

2. Applicant's arguments filed May 26, 2006 with respect to claims 30 and 32-34 have been fully considered but they are not deemed to be persuasive.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 30 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Further analysis indicated that the claim contains subject matter which was not described in the specification in such a way as to

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reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. After thorough analysis, the Examiner can not find clear support in the original disclosure matching the scope of the negative limitation, "without accessing an operating system."

Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 30 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Resman (USPN: 5,535,364), hereinafter Resman, in view of Walls (USPN: 5,675,790);

As per claim 30; Resman discloses the invention as claimed including a method comprises allocating to a first process a first block of a memory that has a size designated by a user is taught as allocating a higher priority procedures first portion of RAM by an I/O device or host device (without accessing an

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operating system) with a size designated by a user if RAM size available from the first portion (e.g. see abstract, column 2, lines 37-40; column 3, lines 6-8); allocating to second process a second block of the memory that has a size designated by the user is equivalently taught as allocating a lower priority procedures to a second portion of RAM by an I/O device or host device (without accessing an operating system) with a size designated by a user when available RAM size in the first portion exceeds a first threshold level (e.g. see abstract, column 2, lines 41-44, column 3, lines 6-8). Resman discloses the invention as claimed except for the serialized operation by allowing a first thread to access a first designated block of the memory while another thread requests and secures access to another block of the memory. Walls, in his teaching of method for improving the performance of dynamic memory allocation, clearly discloses the concept of serializing accesses to the dynamic memory section (e.g. see column 2, lines 42-44); allowing a first thread to access the first section of the dynamic memory while another process secure access to another section of dynamic as being equivalent to when two users make simultaneous requests for dynamic memory, preventing the allocation to the same section of dynamic memory to two or more processes wherein it's understood that each process must be allocated for access to different section of dynamic memory (e.g. see column 2, line 67 bridging

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column 3, line 4). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to utilize the teaching as taught by Walls as being detailed above for that of Snyder's system in order to arrive at Applicant's current invention. In doing would allow multiple operations be processed without having to wait for the completion of one operation in order to process the next operation which results to enhancing system throughput, therefore being advantageous.

As per claim 32, Resman clearly discloses the first and second blocks of memory (free RRM pool and 26) are consecutive block of memory (e.g. see figure 1);

As per claim 33, the further limitation of incrementing A VALUE, being equated the available RAM, wherein in allocating a first portion to a higher priority process by determining if available RRM is available from the first portion (e.g. see column lines 39-41);

As per claim 34, the further limitation of determining the second block of memory based on the incremented value (incremented of available RRM in the first portion) is taught by Resman; for example, Resman clearly discloses enabling allocation of RRM from the second portion to a lower priority procedure when available RAM In the first portion exceeds a first threshold level (e.g. see column 2, lines 40-43);

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Allowable subject matter

7. Claim 31 is objected to as being dependent upon a rejected base claim 30, but would be allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims. The prior arts of record do not teach nor clearly disclose the allocating of the first and second blocks of memory to the first and second processes is based on a token obtained from a designated area of the memory.

8. With respect to the arguments that Resman does not teach "allocating to a first/second process, without accessing an operating system, a first/second block of a memory that has a size designated by a user"; first of all, Applicant's counsel correctly points out at column 1, lines 65-66 that the users who install (and also allocate) the amount of RAM for the printer; however, attention should be directed to lines 42 et seq. on column 1 wherein Resman clearly discloses the user who carried out all the allocation/preallocation; for example, "preallocation of RAM to various procedures that are to execute within a data processing system requires that the user make assumptions on how the RAM is to be utilized by each procedure and the relative levels of performance between the various procedures.", also see column 2, lines 37-44 and column 3, lines 6-8. Noting further that Walls also discloses the allocation blocks with the block

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size 24, 25, 26, 27, 28, 29 (figure 2, and similarly for 34S, 36S, 38S... are selected and allocated by the consumers (e.g. see figures 2 and 3, column 5, lines 55 et seq.). Resman teaches allocating a higher priority procedures to a first portion of RAM by an I/O device or host device transparent of the operating system with a size designated by the user if RAM size available from the first portion (e.g. again, see abstract, column 2, lines 37-40 and column 3, lines 6-8); Resman discloses different size portions IRAM size or memory block size as being claimed) are allocated between procedures having higher and lower priorities without interference of the operating system (e.g. see column 2, lines 30-36). Again, the access serialization is taught by Walls wherein Walls teaches allowing a first thread to access the first section of the dynamic memory while another process secure access to another section of dynamic as being equivalent to when two users make simultaneous requests for dynamic memory, preventing the allocation to the same section of dynamic memory to two or more processes wherein it's understood that each process must be allocated for access to different section of dynamic memory (e.g. see column 2, line 42 bridging column 3, line 4).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan V. Thai whose telephone number is (571)-272-4187. The examiner can

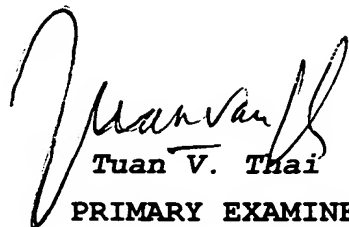
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normally be reached on from 6:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew M. Kim can be reached on (571)-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVT/August 18, 2006


Tuan V. Thai
PRIMARY EXAMINER
Group 2100